

REMARKS/ARGUMENTS

Applicants have received and carefully reviewed the Office Action of the Examiner mailed February 22, 2006. Claims 1-17, 68-73, 75 and 77-93 remain pending. Claims 68-70, 75, and 77-86 have been withdrawn from consideration by the Examiner; and claims 87-93 have been added. Reconsideration and reexamination are respectfully requested.

Election/Restriction

The Examiner restricted newly submitted claims 77-86 and previous claims 68-70 and 75 as raising new issues that are distinct from the various features recited in the previously presented claims. Applicants do not understand this Election/Restriction Requirement.

In the previous Office Action, the Examiner indicated that claims 67, 74, and 76 would be allowable if rewritten in independent form. As pointed out in Applicants Response filed December 20, 2005, claim 77 corresponds to previous allowed claim 67, but has been rewritten in independent form. Likewise, claim 78 corresponds to previous allowed claim 74, but has been rewritten in independent form. Similarly, claim 83 corresponds to previous allowed claim 76, but has been rewritten in independent form. While the preambles of claims 78 and 83 have been amended slightly to more clearly identify the method, the recited method steps correspond to the method steps recited in previous allowed claims 74 and 76, respectively, and the preamble amendments would not appear to raise any new issues. In view thereof, it is not understood how claims 77-86 and 68-70 present any new issues that are distinct from the previously presented claims. In fact, these claims would appear to be in condition for allowance. Reconsideration and examination of claims 68-70, 75 and 77-86 are respectfully requested.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 4, 6-8, 10-14, 15-17, and 73 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 1 has been amended to include the elements of claim 4, and claim 4 has been canceled without prejudice. As such, claim 1, and dependent claims 2-3, 5, and 9, are all

believed to be clearly in condition for allowance.

Claims 6-8, 10 and 15 have each been amended to include the elements of claim 1. As such, claims 6-8, 10 and 15, as well as dependent claims 11-14, and 16-17, are also all believed to be clearly in condition for allowance.

Claim 71 has been amended to include the elements of claim 73, and claim 73 has been canceled without prejudice. As such claims 71, and dependent claim 72, are believed to be clearly in condition for allowance.

Finally, as noted above, the Examiner indicated in the previous Office Action that claims 67, 74, and 76 would be allowable if rewritten in independent form. Claim 77 corresponds to previous allowed claim 67, but has been rewritten in independent form. Claim 78 corresponds to previous allowed claim 74, but has been rewritten in independent form. Likewise, claim 83 corresponds to previous allowed claim 76, but has been rewritten in independent form. As such, independent claims 77-78 and 83, as well as dependent claims 68-70, 75, 79-82, and 84-86 are all believed to be clearly in condition for allowance.

Rejection under 35 U.S.C. § 102(b)

Claims 1-3, 5, 9, 71, and 72 are rejected as being anticipated by Crouse (US 4,846,400). While Applicants respectfully disagree with this rejection, Applicants have elected to amend claims 1 and 71, as described above. As such, claims 1-3, 5, 9, 71, and 72 are all believed to be in condition for allowance.

Applicants have added newly presented claims 87-93. New independent claim 87 recites:

87. (New) An HVAC controller for use by a user, the HVAC controller adapted to provide one or more control signals to an HVAC system, the HVAC controller comprising:

 a movable member adapted to be moved by the user;
 two or more switches that are adapted to indicate a change in one or more control parameters of the HVAC controller;

 a first plurality of detents, wherein the first plurality of detents are configured to cause the two or more switches to be switched in a sequence when the movable member is moved by the user, and the HVAC controller is adapted to change a value of one or more control parameters based on the sequence that the two or more switches are switched when the movable member is moved by the user.

Crouse does not appear to disclose or suggest such an HVAC controller. Instead, Crouse appears to show a control system for controlling a chimney flue damper based on the temperature in the chimney, in order to prevent the chimney temperature from elevating to a point where creosote buildup may ignite. See column 1, lines 35-43. The control system of Crouse appears to include three thermostats 44, 46, and 48, three selector switches 50, 52 and 54, and a motor 28.

Crouse states:

The HT thermostat 44 is open below 500 degrees F. and is closed at 500 degrees F. and higher temperature. The LT thermostat 46 is closed at temperatures of 300 degrees F and below and opens when the temperature goes above 300 degrees F. The MT thermostat 48 is open at temperatures below 400 degrees F. and is closed at temperatures of 400 degrees F. and above.

See column 2, lines 56-63. Crouse also states:

Now temperatures can hold, go up, or go down. If the temperature holds between 300 and 500 degrees F. nothing further happens and the damper 16 remains in the partial position. When the subsequent temperature falls below 400 degrees F., the MT thermostat 48 opens but nothing happens. However, when the temperature further drops to below 300 degrees F., the LT thermostat 46 closes and provides power to the motor 28 which then turns the damper 16 firstly to closed and then past closed and back to the open position to increase air flow and burning to bring the temperature back up.

See column 4, lines 47-58. As can be seen, it appears the three thermostats 44, 46 and 48 are used to dictate the desired position of the damper based on the temperature in the chimney, the three selector switches 50, 52 and 54 are used to monitor the current position of the damper (e.g. open, partially open or closed), and the motor 28 is used to move the damper to the desired position.

For a variety of reasons, Crouse does not appear to teach, disclose or suggest such an HVAC controller. For example, Crouse does not appear to disclose an HVAC controller that comprises: a movable member adapted to be moved by the user; two or more switches that are adapted to indicate a change in one or more control parameters of the HVAC controller; a first plurality of detents, wherein the first plurality of detents are configured to cause the two or more switches to be switched in a sequence when the movable member is moved by the user; and wherein the HVAC controller is adapted to change one or more control parameters based on the

sequence that the two or more switches are switched when the movable member is moved by the user, as recited in claim 87. Crouse does appear to allow a user to manually move the damper. However, prior to doing so, it appears that the motor of Crouse must be disengaged and the master power switch turned off (e.g. opened). Crouse state:

The motor 28 is preferably mounted to the chassis 24 with a tongue and groove sliding mount 72 enabling the belt or gear train 30 to be selectively engaged or disengaged. A spring 74 normally biases the gear train 30 downward into engagement. A pull bolt 76 extending through a larger hole in the chassis 24 enables lifting and pulling of the motor 28 up and away from the driveshaft 32 for disengagement of the gear train 30. A hold-off nut 78 can then be tightened to hold the gear train 30 up in a disengaged mode. In this disengaged mode, the damper 16 is manually operable by either the handle 20 or indicator 36. Were a belt drive used, the disengagement mechanism 82 would alternately move the motor 28 closer to the driveshaft 32 for disengagement. When the motor 28 is operatively disengaged from the damper 16, the master power switch 42 is open, as shown in FIG. 1, to open the power lead to the selector switches 50, 52, 54 and prevent the motor 28 from needless running (Emphasis Added).

see Crouse, column 4, lines 1-19. Thus, Crouse do not appear to teach, disclose or suggest an HVAC controller that is adapted to change one or more control parameters based on the sequence that the two or more switches are switched when the movable member is moved by the user, as recited in newly presented claim 87. For these as well as other reasons, independent claim 87 and dependent claims 88-89 are all believed to be clearly patentable over Crouse. For similar and other reasons, new claim 90 is also believed to be clearly patentable over Crouse.

New claim 91 recites:

91. (New) A method for causing two or more switches to be switched in a sequence, the method comprising:

 providing two or more switches;

 providing a movable member, wherein the movable member includes a first series of detents that extend in a pattern along an arc, wherein when the movable member is moved, the two or more switches move along the arc of the first series of detents such that the two or more switches engage the first series of detents in a predetermined sequence; and

 moving the movable member to cause the two or more switches to be switched in the predetermined sequence.

As can be seen, claim 91 recites a movable member that includes a first series of detents that extend in a pattern along an arc. Claim 91 further recites that when the movable member is

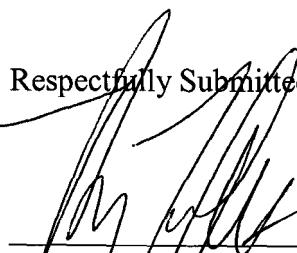
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moved, the two or more switches move along the arc of the first series of detents such that the two or more switches engage the first series of detents in a predetermined sequence. In contrast, and in Crouse, each selector switch 50, 52 and 54 appears to travel along its own detent pattern, (e.g. its own cam 66, 68 and 70, respectively (see, Crouse, Figure 1)). Thus, Crouse does not appear to teach, disclose or suggest providing a movable member that includes a first series of detents that extend in a pattern along an arc, wherein when the movable member is rotated, two or more of the switches move along the arc and engage the first series of detents in a predetermined sequence. For these and other reasons, claims 91-92 are believed to be clearly patentable over Crouse. For similar and other reasons, new claim 93 is also believed to be clearly patentable over Crouse.

In view of the foregoing, all pending claims 1-17, 68-73, 75 and 77-93 are believed to be in condition for allowance. Reconsideration and examination are respectfully requested. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-359-9348.

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Respectfully Submitted,



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